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STUDY
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THE FUTURE ROLE OF THE DIRECTOR OF
INFORMATION MANAGEMENT (DOIM)
ORGANIZATION WITHIN THE DOD CORPORATE
INFORMATION MANAGEMENT INITIATIVE

BY

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THE FUTURE ROLE OF THE DIRECTOR OF INFORMATION
MANAGEMENT (DOIM) ORGANIZATION WITHIN THE DOD
CORPORATE INFORMATION MANAGEMENT INITIATIVE

AN INDIVIDUAL STUDY PROJECT

by

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INTRODUCTION

Automation and automation systems have been used as work force multipliers since their early introduction within the Department of the Army. They were ideal work force aids for attaining the goals of the Congressionally enacted Paperwork Reduction Act of 1980.¹ Over the following decade, as technology advanced, automation systems (also known as automatic data processing systems) became more compact, capable, and easily operated. Tasks, previously performed on centralized mainframe computers in installation data processing facilities, could be performed on mini-computers networked to terminals or stand-alone, desk top, personal computers. Consequently, users' access to information or data became easier and quicker, with the amount accessible increasing significantly.

The ever growing user requirements and demand for direct access to information or data led to increased usage and dependence upon automated systems. This, along with the evolution of automation, generated the need for an organization which would manage, operate, and help develop automation systems, at the lowest reasonable level. Thus, this need resulted in the establishment of an information management (IM) organization under the supervision of a Director of Information Management (DOIM).² Organized principally at the installation level, the DOIM organization administers automation systems (both hardware and software), information, and data within the Information Mission Area (IMA)³--one of its major responsibilities.

The purpose of this paper is to examine the current DOIM organization's ability to perform its mission in a changing information management environment. The examination begins with the Paperwork Reduction Act of 1980 and the duties and responsibilities which evolved from it. Then it moves to the present environment in which ongoing Department of Defense (DOD) initiatives are impacting on the DOIM's operations. This examination will specifically look at two products of the information management evolution--the IMA Cycle and the Army Information Architecture process because both define how the DOIM is to provide for installation requirements for automated systems support.

Regarding the current environment, this paper will look at DOD's Corporate Information Management (CIM) initiative. By reviewing the CIM strategy, model and process, an assessment of the DOIM's ability to support the installation community can be made. Although focusing upon the CIM initiative, this paper does not ignore the external factors (i.e., DOD downsizing, budget reductions, antiquated infrastructure) also at work within the IMA. All the above are impacting on the DOIM organization, especially in its ability to provide timely, state-of-the-art, cost effective automated information systems and services. After analyzing the more significant factors, this paper will identify possible changes which can promote near-term, increased organizational effectiveness.

BACKGROUND

Public Law 89-306, commonly known as the Brooks Act, began to focus on automation by defining the term ADPE (automatic data processing equipment). It included in the scope of that definition telecommunications, visual information, records management, and publications and printing. The act also provided authority and guidance for the economic and effective purchase, lease, and maintenance of ADPE for Federal agencies.

The Paperwork Reduction Act of 1980 which followed became Public Law 96-511. The Act was initiated "to reduce paperwork and enhance the economy and efficiency of the Government and the private sector...."⁴ One of its main purposes is as follows.

"...to ensure that automatic data processing and telecommunications technologies are acquired and used by the Federal Government in a manner which *improves service delivery and program management, increases productivity, ...reduces the information processing burden for the Federal Government....*"⁵ [Italics are the author's.]

The Act, upon becoming law, established an Office of Management and Budget requirement to create the Office of Information and Regulatory Affairs. Working through the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence, the regulatory agency exercised oversight of the Army's regulatory agent--the Director of Information Systems for Command, Control, Communications, and Computers (DISC4). The Law also established the Information Mission Area (IMA) disciplines which include automation as a discipline.

Army Regulation 25-1 describes the Sustaining Base environment as it relates to IMA.⁶ It states that "Every installation will have an information manager as a principal staff officer. The installation information manager is designated the Director of Information Management (DOIM)." Stated more definitively.

"The DOIM manages the Army's information services at the installation level as prescribed in AR 5-3. Through the DOIM, integrated sustaining base information services and support are provided to the installation.... Installation/activity information management encompasses all the disciplines of the Information Mission Area (IMA)--telecommunications, automation, visual information (VI), records management, and publishing and printing." ⁷

Regarding automation alone, the DOIM supports installation users daily information management needs within the base operations functional areas.⁸ To meet all its IMA responsibilities when supporting the installation users base operations requirements, the DOIM organization works within the Army Information Architecture (AIA) process.

ARCHITECTURE MANAGEMENT

The AIA process is the procedure used by the DOIM to provide order and rationale to what might otherwise be chaos when attempting to meet automated information or data management needs of installation organizations and activities. In accordance with AR 25-1, "Architecture control will be established at each organizational level down to and including separate brigade

level." Also, "All information architectures will be requirements based, coherent, achievable, and cost effective."⁹ The DOIM assists the installation users in developing their requirements, if necessary. The organization's staff validates all requirements before forwarding them to the major command (MACOM) headquarters.

Under the Army Information Architecture process:

- a. information will be managed through centralized direction and decentralized execution,
- b. proposed and existing business methods will be subject to cost-benefit analysis,
- c. information systems performing the same function must be common,
- d. computing and communications infrastructure used will be transparent, and
- e. common definitions and standards for data will exist Army-wide.¹⁰

For satisfying installation automated information requirements, while working within the intent of the AIA, the DOIM complies with the IMA Cycle. This cycle has seven distinct major activities to be followed when attempting to satisfy the individual information requirements. Those major activities are listed below.

- a. Step 1 - document the baseline and current target configurations by identifying existing information requirements....

b. Step 2 - develop an objective configuration which is a logical structure consisting of the information models....

c. Step 3 - develop policy objectives which support the effective and efficient execution of actions to achieve the IMA goal of meeting users information requirements.

d. Step 4 - identify information requirements not being met in the baseline and current target configuration.

e. Step 5 - derive an approved and prioritized initiative list....

f. Step 6 - plan, program, and budget projects based on technical solutions.

g. Step 7 - acquire, field, and evaluate projects resourced projects.¹¹

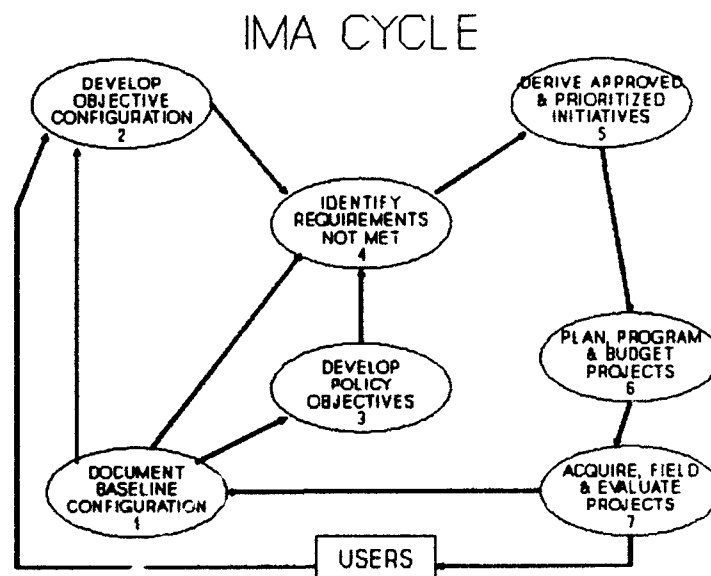


Figure 1.

Processing requirements or needs in accordance with the IMA Cycle is detailed, time consuming and manpower intensive for the DOIM organization. The Resource Management and Plans Division--tasked to perform requirements and architecture development--carries out the applicable process steps done at the installation level, along with its other duties. During requirements development, Steps 1 through 4, the DOIM works with the requesting user and must: first, conduct an information requirements study (IRS); then, prepare an information capability requirements (CAPR) defining the deficiencies or needs; and finally, generate and forward a requirements statement (RS) documenting the requirements or needs to the MACOM for input into the Army-level modernization plan (MOD Plan).

The DOIM must use the IMA Cycle process at the installation level when validating and setting priorities for users information requirements which are not centrally controlled (i.e. "stove piped") as major projects or systems. These requirements usually are identified as "installation uniques" and fall below the funding thresholds of a major project. Consequently, they must compete for resources once incorporated into the Information Management Master Plan. Also, there are often lesser projects which can derive their procurement authority, based on their architecture and funding threshold, from a lesser regulation (i.e., CTA 50-909). Nonetheless, they must go through the same process for validation and resourcing, only at the installation level.

CORPORATE INFORMATION MANAGEMENT

Operating in accordance with the IMA Cycle, in a dynamic information management environment, creates a good deal of work for the DOIM organization, even with a multi-disciplined staff. Recent personnel decrements have reduced the number of key staff people available to meet the existing workload. DOD's Corporate Information Management (CIM) initiative seems to offer a more refined approach to fulfilling users' automation requirements, while providing resource savings as an added benefit. The initiative is representative of the latest changes in information management philosophy, taking us into a 1990s rendition of the Paperwork Reduction Act.

"The objective of the DOD corporate information management (CIM) initiative is to increase military effectiveness while meeting the functional cost reduction targets of the Secretary of Defense's July 1989 Defense Management Report (DMR) to the President. This will be done by facilitating business process improvements, including deploying information technology...."¹²

Succinctly stated, the primary objective of CIM is "business process improvement"--reducing non-value-added work and costs while improving the management of information.

Based on the above, CIM has undertaken an ambitious goal. Projected dollar savings alone force the DOIM organization to change its current business practices.

"Ongoing DMR initiatives are expected to reap \$70 billion in savings in efficiency and productivity improvements by fiscal year 1997. Out of the \$70 billion, about \$36 billion is tied into the ability of information technology to support the changed

work patterns of DOD. About \$6 billion out of the \$36 billion are to be achieved purely through improvements in efficiency of information technology. The rest of the \$36 billion is improvements in the delivery of mission capabilities and efficiencies."¹³

The above savings are obtained from: the reduced number of systems needed as DOD continues to draw down; the elimination of duplicative development and operation of systems performing the same functional job; the slowing down of development and modernization as Department standards, architecture, and software are implemented; and the changing of business practices in justifying investment and financing of new systems. Included are the savings for personnel performing operations and maintenance (O&M) functions. [For purposes of this paper, "efficiency of information technology" is considered the use of automated information systems.]

The methodology to achieve the CIM initiative is somewhat different from methodologies used in the past. The basis of CIM is the use of proven business process modeling and activity costing techniques, used to reduce processes down to their simplest terms. This permits the functional manager to see which activities are value-added, how much they cost, and what are the cost drivers.¹⁴ Initially, CIM will focus on data processing facilities. However, there are more base operations functional areas receiving automated information management support that will fit in with the CIM goals.

DOD's embarkation into the world of Corporate Information Management is not without precedent. Commercial corporations

have adopted CIM principles and developed plans based on the following CIM Management Model which is used by DOD.¹⁵

CORPORATE INFORMATION MANAGEMENT MODEL

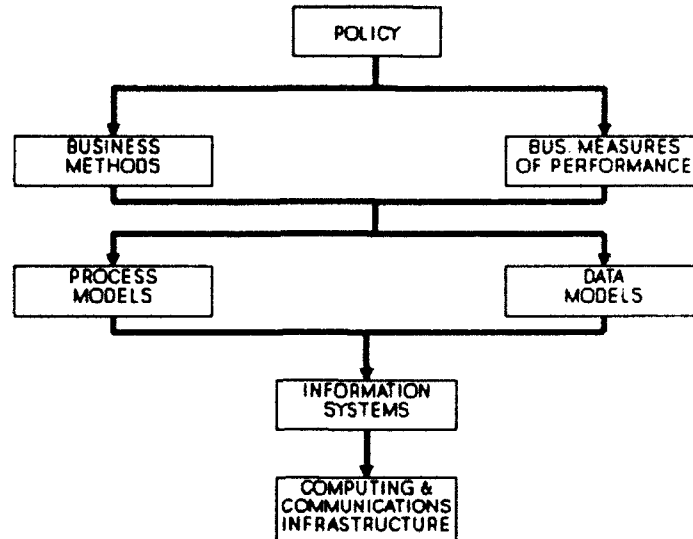


Figure 2.

DOD is using the above model with the following strategies.
(Business enterprises have used similar strategies.)

a. Process Modeling. The documenting of new and existing business methods in major functional areas to ensure that functional improvements truly drive all future information systems decisions (i.e. cross service and joint programs).

b. Measurement of Effectiveness and Efficiency. The installation of functional, technical, and cost measures of performance to establish proper controls for information management with a focus on quality, costs, productivity, and timed based performance. This is the essence of "bench marking."

c. Management of Expenditures. The capture and management of all costs associated with information systems to assess a system's efficiency.

d. Common Information Systems. Common and cost effective information systems whose development is based upon process models and data standards and whose implementation is across DOD functional areas. (A common system is a system used by more than one organization.)

e. Open Systems Infrastructure. The use of communications and computing infrastructure based upon the principles of open systems architecture, freeing DOD from proprietary systems.

f. Data Standards. The development of open systems standards with increasing reliance on full conformity with Federal Information Processing Standards for all new system developments.

g. Life-cycle Management. The governing of the implementation of CIM principles in the automated information system development process.

h. Education. The education of DOD personnel in CIM concepts and plans.¹⁶

The importance of cost savings cannot be under-emphasized with CIM in these fiscally constrained times. But, projected fiscal reductions will diminish the funding opportunities for information management systems and programs.

"The DoD budget has steadily gone down in real (inflation adjusted) terms since FY

1985. . . . The real decrease for FY 1993 alone, without further cuts, would be minus seven percent."¹⁷

The ability of the DOIM to improve installation capabilities through local funding will be minimal. It is felt that...

"The budget, as submitted, has some inherent deficiencies, particularly in maintenance backlog, but also in base operations in general. . . . The prediction is that O&M will be in trouble before the year is ended and may itself require bailing out."¹⁸

There is another initiative being implemented concurrently with CIM, aimed also at increasing the effectiveness and efficiency of the DOIM organization. It is the Defense Business Operating Fund (DBOF), with its Fee-For-Service component. For the DOIM, this is a "competing" program. It makes the DOIM organization determine business process improvements to remain competitive with other businesses. The goal is to provide least cost (using a valid costing methodology), highest quality products and services to installation users. Should the DOIM fail to do so, loss of customers will result. DBOF/FFS seem to parallel the CIM initiative in the end result. Both initiate data collection and analysis which are usually resource intensive and can stress a minimally staffed DOIM organization.

CIM IMPLEMENTATION

Looking back at the CIM Management Model, policy begins the process. Policy guidance is important if the strategies are to be accomplished. The Information Policy Council has been

established to ensure Department-wide policy coordination of information management efforts. This senior level group, consists of principal staff assistants and Under Secretaries of the military services. It had its first meeting in September 1991.

"An additional mechanism set up by the ASD(C3I) to implement IM on a Department basis is the establishment, at the Principal Deputy Assistant Secretary of Defense level, the position of Director of Defense Information (DDI). The DDI has been charged with 'developing and promulgating information management policies, implementing information management processes, programs, and standards; and integrating the principles of information management into all the Department's functional activities.'"¹⁹

The DDI staff is divided into five areas--one being policy.²⁰

The following statement provides a status on DOD's issuance of concrete CIM policy guidance.

"... almost three years have passed since CIM's introduction, much about the program is still undefined. A formal doctrine is not expected until 1993, and the few policies that have been mentioned publicly still don't have set implementation dates."²¹

Continuing with the left side of the CIM Management Model, business methods are next in the process. "Business methods are the formal way in which business is conducted. They represent a selected and defined approach to executing the operation of a business or government agency."²² In conjunction with business methods, process models are used to "...document business methods by graphically describing the tasks performed and their sequence.

They are used to describe methods and are essential to continuously evolving improved methods."²³

Any modeling will use "business process improvement" to achieve functional improvements. The technique has been used successfully in private industry to eliminate non-value-added practices. The particular modeling technique to be used within the information management arena (base operations support functions, specifically) is unknown at this writing.²⁴

On the right side of the model are measures of business performance and data models.

"Measures of business and mission performance must also be defined. They provide the framework for evaluating effectiveness and efficiency of an organization's business methods and the resulting operations. These measurements permit comparative evaluation and provide insight to the strengths and weaknesses of operations....

"...data models represent the data necessary to execute the business method. Data models formally define the terms (data) used in a business method. These terms and their relationships, once defined, comprise a business language [and] are to be captured in a dictionary. Together the data models and dictionary comprise a corporate information standard."²⁵

It must be noted again that the basic goals of CIM are similar to the goals of the Defense Business Operating Fund/Fee-For-Service program. The ability of the DOIM organization to provide required information management support services appears inextricably tied to the successful implementation of these cost saving programs. Yet the installation infrastructure cannot be

forgotten. The success of all current initiatives is linked to the infrastructure (i.e. computing and communications infrastructure) upon which they must ride. That infrastructure should be transparent to the user, but it must be sufficiently developed to make CIM work. That infrastructure will also make possible taking advantage of information systems technology--the means for implementing business methods and performance measures which result in increased organizational efficiency.

ANALYSIS

Reductions in defense spending, as evidenced by the Congressionally directed and approved base realignments and closures (BRAC), DOD's downsizing, and defense budget reductions, put additional emphasis on the need to implement initiatives to gain greater efficiency and effectiveness with our government businesses and with service providers. This need becomes very apparent when one compares how the various installations receive support in the base operations functional areas. Throughout the Army, within the various MACOMs, DOIMs are providing the same "type of support" to users performing the same functions, only at different locations.

Information management systems, properly developed and used, can help achieve improved performance and quality objectives. DOD's Corporate Information Management (CIM) initiative is one program to accomplish better business practices, and the DOIM organization will need to implement CIM to improve effectiveness.

However, the DOIM may not have the wherewithal to effectively carry out all the needed CIM strategies. More importantly, this condition may be beyond the organization's ability to influence. Several factors must be considered in explanation of the above statement.

The current information management environment is reacting to several factors which can hinder the DOIM's ability to implement the CIM initiative. Working within the environment, possibly in conflict with one another, are the Defense Business Operations Fund (DBOF)/Fee-For-Service (FFS), Defense Management Report Decisions (DMRD), "stove piped" programs, and fiscal reductions.

Beginning with DBOF²⁶ and FFS²⁷,

"The Defense Business Operations Fund (DBOF) and Unit Cost resourcing were established . . . as the financial framework to assist in the management of resources during the downsizing and restructuring of the Department. This framework provides a method of ensuring that managers have visibility of all costs so that their decisions include consideration of how to get the best product/service for their dollars."-
-Lieutenant General Merle Freitag,
Comptroller of the Army, May 1992.

This program's approach has techniques similar to those used in CIM's process modeling and business methods analysis. It too uses measures of performance and data models to identify business shortfalls. In comparison, both CIM and DBOF/FFS require managers to analyze their business methods and/or service processes to determine changes that promote efficiency and effectiveness. Enacted changes aim at minimizing per unit cost

of products and services. Concurrently, they seek to maximize quality, while giving back to the organization any benefits from its efficiencies. Trying to implement CIM and DBOF/FFS, at the same time, seems to be duplication. Both require a level of analysis which competes for the time of the DOIM's personnel. These people are already performing in a multi-disciplined manner due to existing demands and their few numbers. Additional tasks to collect data and perform process and business methods analysis can only add to further job stress.

Also adding to job stress is implementation of the DMRDs. One of note is DMRD 924 and its impact must be assessed. DMRD 924, approved in concert with the CIM initiative, was aimed at reducing Defense automatic data processing (ADP) computer operations and software design activities in CONUS. Savings result from reductions in personnel, equipment, software license fees, and maintenance costs, plus increases in operational efficiencies. Consolidation of ADP computer operations at Army Installation Processing Centers (AIPC) reduces the DOIM's Data Processing Installation (DPI) operating requirements. Therefore, the same number of installation level operators is no longer needed.

DMRD 924 also calls for the consolidation of ADP software design at a MACOM support activity. This consolidation eliminates the need for software designers and maintainers on the DOIM staff, leaving no "authorized" capability at the installation for satisfying user unique ADP software requirements

or for assisting the analysis of business and data models. The resultant impact is a greater dependence upon consolidated support and centrally managed programs to satisfy the common needs that exist internal and external to the base operations arena. Regardless of the source of support, it will be paid for in accordance with the DBOF/FFS concept.

Centrally developed and managed programs to provide common, base operations support needs have been begun. Two such programs are the MACOM Internal Support Modules/Installation Support Modules (MISM/ISM) and the Sustaining Base Information Systems (SBIS). The MISM/ISM program is to replace most MACOM management applications and installation unique applications with standardized service applications. SBIS, having a different focus, consolidates application software and hardware in an open systems environment. Use of an open systems environment architecture frees the DOIM of costly ties to proprietary systems when upgrades or replacements--software or hardware--are required. Along with adoption of an open systems environment architecture, the central management, development and fielding of MISM/ISM and SBIS are examples of DOD's CIM strategy in operation.

Upon examination of the above programs, one will notice a growing emphasis on standards and standardization, getting away from unique or proprietary information management systems. The government has taken the following action to promote and enforce this position.

"The government has mandated that all new computer procurements or major upgrades comply with GOSIP [Government Open Systems Interconnection Profile], POSIX [Portable Operating System Interface Exchange], and SQL [Structured Query Language]. Agencies not complying must acquire waivers proving that compliance would impair mission effectiveness or would cost more to implement than it would save in the long run."²⁸

Unfortunately, government-compliant products do not exist in certain technology categories. But products are not all that is affected by an open systems environment. It affects networks and their design. Since networks are an integral part of information management systems architecture, they must accommodate the open systems environment standards. It appears that compliant upgraded or replacement systems and networks may not be available in the near-term.

While efforts are ongoing to improve efficiency and effectiveness, fiscal budgets are being reduced. This emphasizes the importance of process and business methods improvements. As stated earlier, the base operations budget will receive a significant reduction. As a result, the DOIM will be hard pressed to provide the same expected level of basic support as in previous years. Acquisition of common automation systems, procured as economically as possible, are the way of the future. CIM's common systems approach applied to base operations functional requirements can help offset the fiscal reductions. The bottom line is developing better ways of doing business and acquiring automation systems is a necessity.

The above paragraphs lay out some of the key forces operating in the information management environment. After giving them due consideration, one may deliberate about the capabilities left in the DOIM organization. Therefore, the DOIM organization will be looked into next.

It must be noted that all DOIM organizations are not structured and manned exactly the same, although they are organized in accordance with AR 5-3. Each has a somewhat unique mission in order to support its particular installation. Nonetheless, they share a common mission when providing base operations support. Mission accomplishment is hindered by the following list of diminished capabilities or limiting conditions.

First, the DOIM--responsible for automation policy--has no detailed CIM policies to use as clear guidance when making management decisions regarding information management systems. Not all Army information management regulations have been revised to incorporate the aspects of CIM. "Stove piped" systems, fielded by the functional proponent's, do not suffer adversely from a lack of policy guidance. Under CIM, these systems are centrally developed and their acquisition has been slowed down. Any resultant fielding delays may make installation users impatient. They might respond by insisting upon being allowed individually to take advantage of automation's technological advances. This could be seen as regression to the times when local "uniques" (hardware, software, and networks) were created as short-term solutions. Permitting the development of such

systems would place additional work burdens on the DOIM's planning staff and would result in the staff being less effective.

The potential for the above to happen becomes greater as small computer capabilities continue to increase and the DOIM remains committed to serving installation users. Capabilities expected from a "delayed" centrally developed automation system may be achievable using state-of-the-art mini-computer systems. Changes to regulations, giving approval authority for certain automation purchases (i.e., computers, peripherals) to brigade level officials, facilitate attempts to build systems. However, Congressionally mandated limits on system costs and network configurations act to prevent users from seeking this course of action. Existing policy forbids the "piecemeal" purchase of equipment intended to be connected later into networks or larger systems. The above limits help to reduce the distraction to the DOIM caused by users wanting interim systems.

As a minimum, automation equipment purchased now and in the future must be able to operate in an open systems environment (the CIM standard architecture). Established policy and its enforcement can ensure this. The DOIM now provides policy and enforcement within the bounds of the IMA Cycle and the Army Information Architecture (i.e., validating user requirements). Although the DOIM staff is multi-disciplined, in the future it may not have the requisite expertise for validating requirements, especially as conducted under CIM. Also being under-staffed,

there may not be enough people to perform the detailed scrutiny that validation necessitates.

The DOIM organization is being overwhelmed by "ways" to become more efficient and effective. Over-arching everything is Total Army Quality (TAQ), begun in an effort to tap workers' creativeness in devising better services and products through business process improvements. Carrying out the TAQ is time consuming. Under the TAQ umbrella, DBOF/FFS has been started, focused initially on consolidated data processing support with installation users paying. The DOIM is expected to develop costing methodology and process improvements for any data processing services still remaining at the installation level. It has already been pointed out that this depth of analysis is resource intensive and competes against other mission support. Joining TAQ and DBOF/FFS are the DMPD cost saving changes (i.e., personnel decrements, automation programs).²⁹ Regrettably, some DMRD reductions are taken before system upgrades or replacements are received. This reduces the DOIM organization's ability to support installation users in an effective manner, based on past performance levels.

The DOIM organization, handicapped by its personnel reductions, needs the IMA Cycle and Army Information Architecture processes streamlined. This is doable under CIM. CIM will provide the centralized development and procurement of automation systems supporting base operations functions. Centralization eliminates the need for detailed validation of common user

requirements generated by installation base operations functions. The DOIM can carry out the data collection and local business methods analysis, with all other elements of the CIM model and validation performed at the MACOM level. This would reduce the validation burden of DOIMs, freeing them to focus more on operational service support.

Last to be considered in this assessment, but not the least important, is the infrastructure over which information management systems must operate. Installation infrastructures were designed and installed during the analog technology age. Today's information management systems require a "computer and communications" infrastructure that provides low bit-error-rate operation for peak efficiency. Replacement of the existing antiquated infrastructure would cost millions of dollars.

Programs like the Outside Cable Assessment and Rehabilitation (OSCAR) program, initiated to improve installations' physical plant, have not modernized all installations to a level that allows them to take advantage of modern transmission technology. As a result, DOIMs seek infrastructure improvements by using installation funding or program funding (obtained from program managers). Both do not necessarily happen when needed or in the amount needed and program funding is usually limited to the program it supports. Therefore, the outdated infrastructure remains an impediment to the efficient operation of information management systems.

The CIM initiative has allowed for investment dollars to be identified within O&M and Procurement budgets for developing a CIM infrastructure. This method of funding hints of a piecemeal approach, at best. Infrastructure upgrades take a long time due to design engineering times, architecture standardization adoption, and physical work requirements. They also demand large amounts of money. In an austere operating DOD, large dollar amounts for a CIM infrastructure do not look forthcoming. So, the DOIM's efficiency will remain impeded because information management systems cannot operate at peak efficiency over the existing infrastructure.

In summary, the DOIM organization is going through a major transition period. CIM has been in effect since 1989 and yet definitive policy guidance is still forthcoming. The organizational structure of the DOIM has been decremented, while it has had to implement competing cost savings programs. Consolidation has led to lost DOIM mission tasks and the associated personnel. Common base operations functions are to be met by centralized programs. The funding levels for information management systems providing base operations support are on the decline. Further personnel reductions are being imposed. Add to this the seriously aged and degraded installation infrastructure and it appears that the DOIM is regressing instead of progressing. Now is the time to redefine the DOIM's mission regarding information management systems supporting base

operations, ensuring that changes caused by the CIM initiative are incorporated.

RECOMMENDATIONS

The following recommendations are presented as ideas to help a DOIM organization continue to provide installation users quality, low cost services and products, while acquiring capabilities to fully support the CIM initiative.

First, impose a moratorium on the development and acquisition of decentralized installation level information management systems, pending a check against on-going centrally managed programs or an evaluation using the CIM Model, with emphasis placed on value-added improvements. All future development efforts should support the CIM strategy.

Second, eliminate the automation/information management duties of developing integrated information requirements, architectures, configurations, policies, plans, and programs from the DOIM mission (with those duties performed at a centralized MACOM organization), allowing DOIM personnel to focus on becoming network managers. This will leave the DOIM as strictly a service organization for the IMA.

Third, retain the DOIM position on the installation garrison staff, with operational supervision of the DOIM organization. This will allow the DOIM to remain responsive to the needs of the installation served.

ENDNOTES

1. The paperwork Reduction Act of 1980, U.S. Code, vol 2, sec 3501-2 (1980). The Act (Public Law 96-511 [H.R. 6410]) was "An act to reduce paperwork and enhance the economy and efficiency of the Government"

Section 3501. Purpose

"The purpose of the chapter is --

(1) to minimize the Federal paperwork burden for individuals, small business, State and local governments, and other persons;

(2) to minimize the cost to the Federal Government of collecting, maintaining, using, and disseminating information;

(3) to maximize the usefulness of information collected by the Federal government;

(4) to coordinate, integrate, and to the extent practicable and appropriate, make uniform Federal information policies and practices;

(5) to ensure that automatic data processing and telecommunications technologies are acquired and used by the Federal Government in a manner which improves service delivery and program management, increases productivity, reduces the information processing burden for the Federal Government and for persons who provide information to the Federal Government; and

(6) to ensure that the collection, maintenance, use and dissemination of information by the Federal Government is consistent with applicable laws relating to confidentiality, including section 552a of title 5, United States Code, known as the Privacy Act."

Section 3502. Definitions

"(2) The terms "automatic data processing," "automatic data processing equipment," and "telecommunications" for not include any data processing or telecommunications systems or equipment, the function , operation or use of which . . .

(E) is critical to the direct fulfillment of military or intelligence missions, provided that this exclusion shall not include automatic data processing or telecommunications equipment used for routine administration and business applications such as payroll, finance, logistics, and personnel management;"

2. The standard DOIM organization consists of the following:

a. Office of the Director - a dual hatted position that

serves as the installation commander's information manager and as commander/director of the supporting organization.

b. Operations and Systems Integration Division (OSID) - the staff element that provides management oversight and supervision of the operational information services activities for the DOIM.

c. Resource Management and Plans Division - the staff element that develops the integrated information requirements, and architectures, configurations, policies, plans, programs, and budgets that support them.

d. Logistics Support Division - the staff element that ensure necessary logistical support.

e. Operational Information Activities - activities that provide information services and products to the installation.

f. Single Installation Operational Activities - telecommunications center (TCC), telephone switchboard operations, telephones, installation radio support, information processing facility (IPF), mail and distribution centers, records holding area and forms and publication support center.

g. Multi-disciplined Installation Operational Information Services - (a) Information Center -- provides integrated information customer support in the form of advice and assistance and (b) Information Services Support Center -- provides "one-stop" delivery of all types of information services and products to the customer (products or services produced by some of the activities identified above in paragraph f).

Department of the Army, Information Management: Management of Subdisciplines - Installation Information Services, Department of the Army Pamphlet 25-1-1 (Washington: U.S. Department of the Army, 27 August 1991), 3.

3. The Information Mission Area disciplines are listed below.

"Telecommunications. Management of the installation telecommunications center and of leased commercial and Army telecommunications systems Facilities may include voice, video, and computer communications lines, local area networks, PBX systems, interfaces to DOD networks, and facsimile systems.

"Automation. Management of assigned data/information processing facilities and associated computers, software, peripherals, and associated services and support; document imagery technology . . . , and optical character recognition systems; and electronic mail systems and other means of transmitting information through local networks and telecommunications.

"Visual information services, including management of assigned VI activities. Supervision of photographic, motion picture, television, audio, compact disk technology, graphic art, VI library, VI instruction, VI consulting, presentation, and maintenance are installation support services

"Records management. Management of the life cycle information itself, encompassing records creation, maintenance and use, and disposition. As an integral part of information management, this includes files, correspondence, official mail and distribution, declassification, vital records, duplicate emergency files, reports control, office symbols; support and use of military general purpose dictionaries and brevity codes; and the impediments within the Army of the Privacy and Freedom of Information Acts.

"Publishing and printing. Management of the installation's publications and forms management programs; distribution systems for printing and duplicating/copying; design, production, and procurement of printed materials. form letters. and blank forms; and installation print facilities. This includes the responsibility for office copier management.

"Library management. Management of the library services, resources, and facilities which support the organizational mission by identifying, selecting, acquiring, organizing, controlling, retrieving, and dissemination information and library resources and services.

"Other services. Data element dictionaries; and the use of associated information standards; management of programs related to or subordinate to the areas meted above, governing the general content, control, and format of information management."

Department of the Army, The Army Information Resources Management Program, Army Regulation 25-1 (Washington: U.S. Department of the Army, 18 November 1988), 19-20.

4. United States Code Congressional and Administrative News, 96th Congress-Second Session 1980, Vol 2, Legislative History, (St. Paul, Mn: West Publishing Company, nd), 2812.

5. Op cit..

6. "Sustaining Base. This environment encompasses that area and information resources usually located outside of the area of operations. It encompasses the information resources and activities which have the responsibility to raise, organize, train, equip, and , eventually, deploy and sustain Army and other assigned forces in the accomplishment of their missions in operational theaters--the Theater Tactical environment.... The type of information resources managed in this environment covers all functional areas less that needed to actually direct tactical forces in the execution of their operational missions in the Theater/Tactical environment."

Army Regulation 25-1, The Army Information Resource Management Program, 3.

7. Department of the Army Pamphlet 25-1-1, Information Management: Management of Subdisciplines - Installation Information Services, 3.

8. Base operations support is composed of the common-service support functions, regardless of the appropriations or fund account from which they are financed.

The four Program Elements (PE) within base operations follow.

- PE****96 - Base Operations(-)
- PE****78 - Maintenance & Repair
- PE****76 - Minor Construction
- PE****56 - Environmental Compliance

The Base Operations Functional Accounts are as follows.

Base Ops (-)/PE****96

- A Real Estate Leases
- B Supply Operations
- C Non Tactical Equipment Maintenance
- D Transportation
- E Laundry and Dry Cleaning
- F Army Food Service Program
- G Personnel Support
- H Unaccompanied Personnel Housing Services
- J Utilities
- M Engineer Support
- N Administration
- P Automation Services
- Q Reserve Component Support
- S Morale, Welfare and Recreation
- T Preservation of Order
- U Resource Management Operations
- V Plans, Training and Mobilization

W Contract Services
X Security & Counterintelligence Operations
Y Records Management

Maintenance & Repair/PE****78
K Maintenance and Repair

Minor Construction/PE****76
L Minor Construction

Environmental Compliance/PE****56
Environmental Compliance

Department of the Army, Army Management Structure (AMS), Army Regulation 37-100-FY (Washington: U.S. Department of the Army, July 1992), 8.

9.

"The term architecture is used in a variety of contexts. While the AIA contains many parts that are referred to as architectures, the AIA is the all encompassing architecture which frames all the other IMA related architectures, components, configurations, programs, plans, and elements.

"The Information Architecture and the Information System Architecture (ISA) provide a complementary set of documents which support management of the IMA by architecture.... The Information Architecture is a requirements based logical representation of the IMA. The ISA is a capability based physical representation of the IMA. Together these two architectures provide tools for managing and policing the IMA."

Department of the Army, Information Management - Army Information Architecture, Department of the Army Pamphlet 25-1 (Washington: U.S. Department of the Army, 20 August 1991), 3.

10. Op. Cit..

11. Army Regulation 25-1, The Army Information Resources Management Program, 14.

12. Director of Defense Information, Status of the Department of Defense Corporate Information Management (CIM) Initiative (Washington: Office of the Assistant Secretary of Defense, April 29, 1992), 2.
13. Op cit..
14. Op cit., 1.
15. Director of Defense Information, A Plan for Corporate Information Management for the Department of Defense (Washington: Office of the Assistant Secretary of Defense, September 1990).
16. Director of Defense Information, Department of Defense Corporate Information Management (Washington: Office of the Assistant Secretary of Defense, April 18, 1991), 20-22.
17. Association of the United States Army, Army Budget Fiscal Year 1993: An Analysis, (Arlington: Association of the United States Army, May 1992), 3.
18. Op cit., 54.
19. Director of Defense Information, Status of the Department of Defense Corporate Information Management (CIM) Initiative, 6.
20. The Director of Defense Information (DDI) staff is divided to look at the five following areas.
 - a. Finance, personnel, health, and Reserve Components;
 - b. Materiel and logistics;
 - c. Command, control, communications, and intelligence;
 - d. Policy; and
 - c. Technology.
21. Lisa Coburn, "DOD INC.," Government Executive 24, no. 6 (June 92): 35.
22. Director of Defense Information, A Plan for Corporate Information Management for the Department of Defense.
23. Op cit..
24. The Integrated Computer-Aided Manufacturing (ICAM) definition is a modeling methodology used by private and public sectors. "It was created to define advanced concepts, techniques, and procedures for the development of logical models to display the characteristics of business activities and the data structure that support them. Within the business environment, these models then serve to support business process improvement, the management of data as a resource, the selection and integration of information

systems, and the content of computer databases." DOD is instituting a program to implement this methodology.

Director of Defense Information, Status of the Department of Defense Corporate Information Management (CIM) Initiative, App D, 1.

25. Director of Defense Information, A Plan for Corporate Information Management for the Department of Defense.

26.

"Under DBOF, the operating force (the customer) receives congressionally appropriated funds to purchase products or services from the support activities (providers). The operating forces determine the specifications and performance levels they desire in the product or service. They then go to the support activities to get them. The support activities sell their products and services to the operating forces at a price reflecting all costs. It should also include any differences in costs due to unique customer specifications and performance requirements. Support activities will have to adjust the level and cost of their operation to meet customer demand and unit cost goals.

"Under this system, the customer gets a total budget based on requirements. The provider gets authority based on workload times the unit cost."

U.S. Army War College, A Primer on the Defense Business Operations Fund (DBOF) (Draft), (Carlisle Barracks: U.S. Army War College, 15 June 1992), 10.

27.

"A second form of unit cost resourcing is the Fee For Service. Here the customer pays for the support through an appropriated reimbursement, thereby directly determining the provider's type and amount of output. Under Fee For Services customers do not usually pay for total costs. For example, costs for military personnel and depreciation are usually excluded. If, at a later date the

activity transitions to DBOF, then rates would have to reflect total costs."

Op cit., 6.

28. Lisa Corbin, "Open Systems: The Key to Computer Interoperability," Government Executive 24, no. 6 (June 92): 56.

29. Various Defense Management Report Decisions (DMRD) applied to the Information Mission Area (IMA) have decremented personnel authorizations within the DOIM organization. IMA service providers have been reduced; but more importantly, reductions have been made in the Resource Management and Plans Division. This division is where user requirements validation and network planning occur. Also, planned automation of DOIM functions (e.g., telecommunications center functions--Defense Message System (Army), telephone operator functions--Automated Directory Service, digital switching installations) has resulted in further personnel decrements in anticipation of operational fielding. These personnel reductions hinder the DOIM's ability to function at peak effectiveness. Any uncovered workload must be redistributed among the remaining staff. Additional training for new duties may not be readily available due to funding constraints.

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